

Application No.: 10/626,732

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[0046] In FIG. 2, the charge control circuit 8, receiving the first, second, third, and fourth predetermined constant voltages V1 – V4, generates a first pre-set voltage Vs1 based on the first predetermined constant voltage V1, a second pre-set voltage Vs2 based on the second predetermined constant voltage V2, a third pre-set voltage Vs3 based on the third predetermined constant voltage V3, and a fourth pre-set voltage Vs4 based on the fourth predetermined constant voltage V4. With this configuration, it becomes possible to eliminate an extra power source to generate power to be used by the CCCV charging circuit 4. In the above configuration, the voltages are determined to meet relationships of V4>V3>V2>V1 V3>V4>V2>V1 and Vs4>Vs3>Vs2>Vs1.

Amend paragraph [0047] to read as follows:

[0047] For example, the above-mentioned voltages V1 – V4 are set as follows:  
 [[.]] The fourth first predetermined constant voltage V4 V1 is pre-set to a voltage exceeding an over-discharge voltage of the lithium ion battery 11. The third predetermined constant voltage V3 is pre-set to a voltage, which the lithium ion battery 11 will have at a fully-charged state. The second predetermined constant voltage V2 is pre-set to a voltage at which a load can be activated. The first pre-set voltage Vs1 is set in a range of from 2.0 volts to 2.2 volts, in cases where a lithium ion battery is used.

Amend paragraph [0054] to read as follows:

[0054] When the battery voltage Vb reaches the third pre-set voltage Vs3, the charge control circuit 8 controls the signal switching circuit 23 to continue to output the second predetermined CCR signal S2 and the voltage switching circuit 24 to output the third predetermined constant voltage V3. Accordingly, the control circuit 26 controls the operations of the control transistor 25 such that the battery voltage Vb indicated by the signal from the voltage detecting circuit 3 is substantially equal to the third first predetermined constant voltage V3 V1 and that the signal from the current detecting circuit 6 indicates that the charging current ib is substantially equal to the second predetermined constant current i2. Thus, the constant current charge is performed during